July 31, 2013 DOER Webinar on Wastewater Heat Recovery Request for Information Questions & Answers

Q: What type of location you are interested in for a potential site (in pipes vs. at wwtf)?

A: DOER is interested in wastewater heat recovery from sewage pipes, pumping stations or metering stations. Wastewater treatment facilities interested in using wastewater heat recovery to heat/cool buildings on-site at the treatment facility should apply to an upcoming Mass Clean Energy Center & DOER funding opportunity for heat pumps, due out this fall.

Q: Would remote pumping or metering stations be considered for this project?

A: Yes, wastewater pumping stations and metering stations would be considered to be candidate for wastewater heat recovery projects if they are located in close proximity to a heat/energy recipient.

Q: Are the heat exchangers you were referring to specific for wastewater?

A: The heat exchangers themselves may not be specific to wastewater, but the system with its pre-screening design will be specific to wastewater.

Q: What is the maximum distance between buildings for this technology?

A: The design of the wastewater heat recovery that is cost-effective will be site-specific and will depend upon the distance between the heat source and the heat/energy recipient, the temperature of wastewater and the volume of the wastewater flow.

Q: What kind of maintenance is involved with a heat recovery system in the pipe?

A: Depending upon the system and the design, the maintenance requirements can be anywhere from daily to annually. DOER is interested in learning from the potential operators of a wastewater heat recovery system what level of maintenance can be expected and would be acceptable.

Q: Is the goal only for POTWs or is something tied to a ground water treatment system possible as a project? For example, at the Lawrence Aviation Industries Superfund site in NY, an active ground water extraction and treatment system captures geothermal energy from extracted ground water to provide heating and cooling for the treatment building on site. Would a similar pilot in Mass be of potential interest under this initiative? Or is it only POTWs?

A: DOER is interested in hearing more about this kind of project and encourages submission of information about this kind of project to the RFI.

Q: What is the minimum temperature of the wastewater necessary?

A: Presumably, the warmer the wastewater is, the more cost-effective a wastewater heat recovery project will be. Heat exchangers, however, have been known to work at temperatures as low as 40°F.

Q: Can the funds be used for engineering or construction?

A: Yes, the funds allocated for wastewater demonstration project(s) in the Alternative Compliance Payments spending plan may be used for engineering or construction costs.

Q: Have you considered the impact of cold wastewater causing nitrification and denitrification failure in wastewater treatment plants?

A: The impact of heat removal from the wastewater on the treatment process, including nitrification and denitrification, will be dependent upon the amount of heat removed, the volume of flow, and the distance from the treatment facility. These factors are site-specific and will be considered in any projects that may eventually be installed through a RFR process.